# PROCEDURE FOR CALIBRATION AND/OR VERIFICATION OF THE APPARATUS USED IN ASTM C 1252

## A. PURPOSE

The purpose of this procedure is to provide instruction for the calibration of the 100 ml measure and to verify the dimensions of other apparatus used.

## B. APPARATUS REQUIRED

1. Boiled deionized water and grease.
2. Calibrated thermometer reading within the specified range.
3. Certified caliper.

## C. PROCEDURE

Follow the procedure outlined in ASTM C 1252.

## D. TOLERANCE

All tolerances are as recorded in ASTM C 1252, Sections 6.0 and 8.0.

# EQUIPMENT VERIFICATION RECORD

Verified By: _____ Date: _____

Equipment: 100 ml Measure (Calibrated), Funnel, Funnel Stand, Metal Spatula Location (Lab): _____

Identification No.: _____ Verification Frequency: 12 months

Previous Verification Date: _____ Next Due Date: _____

Verification Equipment Used: Calipers, readable to 0.001 in., SN: _____ Calibrated

Thermometer, SN #: _____

Verification Procedure: (In-house) OMR-CVP-58 / ASTM C 1252

| Capacity ml | Inside Diameter | Inside Height | Minimum Thickness of Metal | | |
|---|---|---|---|---|---|
| | | | Bottom | Wall | Flange |
| 100 | 39 mm | 86 mm | 6 mm | 2 mm | 3.1 – 3.9 mm |
| | | | | | |

**MEASURE**

| Condition of measure: | Good | Fair | Poor |
|---|---|---|---|
| Rim Smooth? | Yes | | No |
| Rim plane to 0.01 in.? | Yes | | No |
| Measure water tight? | Yes | | No |

Inside diameter of measure: _____ mm

Inside height of measure: _____ mm

Bottom thickness of measure: _____ mm

_____ mm

_____ mm

**FUNNEL**

| Condition of funnel: | Good | Fair | Poor |
|---|---|---|---|
| Cone slope 56-60 deg.? | Yes | | No |
| Opening (output) 12.1-13.3 mm? | Yes | | No |
| Funnel smooth metal 38 mm high? | Yes | | No |
| Minimum capacity 200 ml? | Yes | | No |

**FUNNEL STAND**

Funnel Opening 113-117 mm above measure? Yes No

Means of centering measure below funnel? Yes No

**MEASURE CALIBRATION**

Weight of measure, glass and water _____

Weight of measure and glass _____

Weight of water _____

**METAL SPATULA**

| | | |
|---|---|---|
| Blade length minimum 100 mm? | Yes | No |
| Blade width minimum 20 mm? | Yes | No |
| End cut at right angle to blade? | Yes | No |
| Side of blade straight? | Yes | No |

**Calculate the volume of the measure as follows:**

V = 1000 (M) divided by (D)

V = Volume of measure, ml
M = Net mass of water, grams
D = Density of water, kilogram per cubic meter

Remarks: _____